output signal $y_i(k)$ onto a vector $\boldsymbol{p}_i$ which is assigned to this output signal $y_i(k)$; and

if the number of output signals $y_i(k)$ is one:

c1) feeding the output signal $y_i(k)$ into a device for detection, especially equalization; or

if the number or output signals $y_i(k)$ is two or more:

d1) summing of a majority, especially all of the output signals $y_i(k)$ for forming a sum signal $s(k)$; and

d2) feeding the sum signal $s(k)$ into a device for detection, especially equalization.

2. (Amended) Method as recited in Claim 1,

wherein at least two received signals $r_i(k)$ are available and the corresponding at least two outputs $y_i(k)$ are projected onto identical vectors in step b).

8. (Amended) Method as recited in Claim 1,

wherein the corresponding orthogonal complements of the projections of at least one filtered output signal $y_i(k)$ are calculated.

10. (Amended) System for interference suppression for TDMA and/or FDMA transmission, which at least approximately can

be described as pulse amplitude modulation,

comprising

- an arbitrary number of receive antennas;
- at least one filter device with complex-valued coefficients $f_i(k)$ for filtering of at least one complex-valued received signal $r_i(k)$ of one receive antenna for forming at least one output signal $y_i(k)$;
- at least one projection device for forming a projection of the at least one output signal $y_i(k)$ onto a vector $\boldsymbol{p}_i$ which is assigned to this output signal; and

if the number of output signals $y_i(k)$ is one:

- a detection device which processes the output signal $s(k)$; or

if the number or output signals $y_i(k)$ is two or more:

- a summation device for summing a majority, in particular all output signals $y_i(k)$ for forming a sum signal $s(k)$; and
- a detection device which processes the sum signal $s(k)$.